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IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

SAS INSTITUTE INC.,	§	
	§	
Plaintiff,	§	
	§	
v.	§	CIVIL ACTION NO. 2:18-cv-00295-JRG
	§	
WORLD PROGRAMMING LIMITED,	§	KIX KOMANDER SKAK
et al.	§	PUBLIC VERSION
	§	
Defendant.	§	
	§	
	§	

WORLD PROGRAMMING'S FINDINGS OF FACT AND CONCLUSIONS OF LAW CONCERNING COPYRIGHTS

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I. BACKGROUND

Defendant World Programming Limited ("WPL" or "World Programming")) contends that the works allegedly copyrighted by SAS Institute Inc. ("SASI") are not protectable expression under the Copyright Act. And even if some elements of the works at issue are protectable expression, any such elements must be identified by the Court through the Abstraction-Filtration test. WPL therefore respectfully submits the following Proposed Findings of Fact and Conclusions of Law regarding copyrightability of the works at issue in this case. To the extent any of the proposed findings of fact are more properly deemed conclusions of law, they are hereby incorporated as proposed conclusions of law. Likewise, to the extent any of the proposed conclusions of law are more properly deemed findings of fact, they are hereby incorporated as proposed findings of fact.

II. PROPOSED FINDINGS OF FACT

A. The Parties

- 1. Defendant World Programming Limited ("WPL") is a private limited company under the laws of England and Wales and its registered office is Osprey House, Budds Lan, Romsey, Hampshire SO51 0HA.
- 2. Plaintiff SAS Institute Inc. ("SASI") is a corporation organized and existing under under the laws of the State of North Carolina with its principal place of business at 100 SAS Campus Drive, Cary, North Carolina 27513.

B. Unregistered Works

3. SAS Institute did not apply to register a copyright in SAS software system release numbers 9.0, 9.1, 9.1.2, 9.1.3, 9.3, 9.3m1, and 9.3m2. *See* Rubendall (02/26/2020) Dep. Tr. at 175:17-176:4, 178:20-179:11. Also, none of these SAS software system releases were identified

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as preexisting material on any subsequent registrations. *See* Rubendall (02/26/2020) Dep. Tr. at 173:12-176:4 (registration for 9.2 identifies release 8.2 as previous version but does not identify any of the four intervening releases 9.0, 9.1, 9.1.2, and 9.1.3 as preexisting material), 177:24-179:11 (registration for 9.4 release identifies just the 8.2 and 9.2 releases but does not identify releases 9.0, 9.1, 9.1.2, and 9.1.3, and does not identify intervening releases 9.3, 9.3m1, and 9.3m2 as preexisting material).

C. Copyrightability

- 4. The SAS software is used to manage and analyze data. *See* Dkt. No. 264 at 1. Users operate the SAS software system by writing instructions, called "SAS programs," using the computer programming language known as the "SAS language." *See* Dkt. No. 264 at 1.
- 5. The primary SAS user interface for writing SAS programs using the SAS language is code or text editor that provides a blank space for a user to write code. *See* Jones Copyright Report at ¶ 286, Ex. F at 1, 4 (showing SAS editor).
- 6. Also, a user can use any text editor to write a SAS program using the SAS language—no specific location or program is necessarily needed. *See* Rubendall 02/26/2020 Dep. Tr. at 263:21-264:3.

i. SAS is a Computer Programming Language

- 7. SAS is a high-level computer programming language often referred to as the "SAS Language," and is used by thousands of institutions around the world. *SAS Inst. Inc. v. World Programming Ltd.*, 64 F. Supp. 3d 755, 762 (E.D.N.C. 2014).
- 8. The idea of the SAS Language was conceived in 1964 by Anthony J. Barr. *Id.*; Affidavit of Anthony Barr at ¶¶ 16-18.
 - 9. Anyone can write a computer program in the SAS Language, and no license is

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needed to do so. *SAS Inst. Inc. v. World Programming Ltd.*, 64 F. Supp. 3d 755, 762 (E.D.N.C. 2014); 2/19/20 Rubendall Depo. Tr. at 109:1-22. Thousands of users write programs in the SAS Language. 2/19/20 Rubendall Depo. Tr. at 109:20-22.

- 10. The SAS Language is made up of various functions, routines, statements, formats, engines, macros, procedures, and other options. 2/11/14 Langston Depo. Tr. at 7:5-43:21. These are elements of the SAS Language used by programmers who write programs in the SAS Language. *Id*.
- 11. The SAS Language is distinct from the SAS System software. The SAS System software is SASI's commercially available statistical analysis software. Users of the SAS system software can write code in the SAS language to make SAS language programs. These SAS language programs are submitted to the SAS system software as input files. The SAS System software can read, parse, and execute SAS language programs / input files. These are ".sas" files.
- 12. WPS is computer software that also can read software programs that are written in the SAS Language by third parties.

ii. No Presumption of Copyrightability of Non-Literal Elements

- 13. When SAS Institute applies to register a copyright in a SAS software system release,
- 14. SAS Institute's registrations describe the SAS software with general descriptors such as "code," "revisions and additional text of computer program and documentation," and "entire computer program and documentation included therewith." *See* Rubendall (02/26/2020) Dep. Tr. at 165:24-166:4, 169:21-170:3, 171:16-172:1.
 - 15. SAS Institute's registrations do not describe any non-literal aspects of the SAS

software releases.

16. None of the asserted SAS Institute registrations indicates that it is for a "compilation" or "collective" work.

iii. Compilations

- 17. SAS Institute does not assert copying of its source code in this case. *See* Dkt. No. 295 at 2.
- 18. Instead, SAS Institute asserts a "collection" of "input formats" and "output designs." *See* Dkt. No. 264 at 7-13, 23-29. "SAS users' most common interface with the SAS System allows users to issue written instructions to the software." *See* Dkt. No. 264 at 8. The "input formats" are "commands" of the "SAS Language" that allow users to write "SAS Programs." *See* Dkt. No. 264 at 9-12. SAS asserts names and syntax of procedures (or "PROCs"), statements, and options as part of the "input formats." SAS asserts elements placement of columns, decimal places, alignment, color, and fonts of outputs generated when users' SAS language programs are executed as part of the "output designs." *See* Dkt. No. 264 at 12-14.

iv. Copyright over Computer Program Outputs from User Contributions

- 19. The primary SAS user interface is a typical code or text editor with blank space. See Jones Copyright Report at ¶ 286, Ex. F at 1, 4 (showing SAS editor). The user can use to write code that addresses a wide range of possibilities in terms of analyzing data and solving mathematical and statistical problems.¹
 - 20. SAS Institute's corporate representative, Mr. Craig Rubendall, explained that the

¹ See Rubendall 2/26/2020 Dep. Tr. at 221:1-20, 222:11-18; Whitcher Dep. Tr. at 223:5-224:23; Goodnight Dep. Tr. at 60:8-10, 60:23-61:4.

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users' SAS language programs tells the SAS software what to output and what data to use.²

21. Regarding the SURVEYSELECT procedure as an example, Mr. Rubendall explained at length how a significant portion of output was dictated by choices and variables defined in the user's SAS language program—highlighting aspects dictated or provided by the user's SAS language program.³



22. With respect to the SURVEYSELECT example, Mr. Rubendall testified that the

² See Rubendall 2/26/2020 Dep. Tr. at 184:12-17.

³ See Rubendall 2/26/2020 Dep. Tr. at Ex. 43, Ex. 44, 191:5-202, 204:22-207:10, 207:21-25, 208:25-210:13.

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users'

23. Without the user's program, the SAS software would not know what to do with respect to creating output.⁵ The user's SAS Language program describes the problems to be solved and instructs the system on to how to solve those problems—whereas the SAS software merely executes the user's instruction and fills in gaps that may not have been specified by the user.⁶

24. Regarding the SGSCATTER procedure as an example, Mr. Rubendall testified again about how the user's SAS language program and user's data dictated the output of the SAS software and also again highlighted aspects dictated or provided by the user's SAS language program.⁷ This was the result of his highlighting of that output:⁸

⁴ See Rubendall 2/26/2020 Dep. Tr. at 210:14-211:13.

⁵ *See* Rubendall 2/26/2020 Dep. Tr. at 221:1-20.

⁶ See Rubendall 2/26/2020 Dep. Tr. at 222:11-18.

⁷ See, e.g., Rubendall 2/26/2020 Dep. Tr. at Ex. 47; id. at 229:17-23, 233:18-236:25, 240:5-242:10

⁸ Mr. Rubendall also testified that the plot points themselves were provided by the user SAS language program and that he did his best to highlight them on the graph "without highlighting the rest of it." Rubendall 2/26/2020 Dep. Tr. at 234:25-235:8.

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- 25. With respect to the SGSCATTER example, Mr. Rubendall testified that without the user's SAS language program, the SAS system would not know what to plot, and so in that respect, the user's SAS language program has to be important. For example, the plots themselves, the variable labels, the minimum and maximum values, the title and subtitle, and the legend categories and title all would not exist without the user's SAS language program.
- 26. Similarly, SAS Institute employee Mr. Whitcher explained that user programs and inputs are necessary for the SAS software to have any outputs—outputs which are, at least in part if not entirely, determined by the user.¹¹

⁹ See Rubendall 2/26/2020 Dep. Tr. at 240:20-241:2.

¹⁰ See Rubendall 2/26/2020 Dep. Tr. at 241:4-20.

¹¹ See Whitcher 1/31/2020 Dep. Tr. at 223:5-224:23.

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27. Additionally, Dr. Goodnight testified that the user-generated output is a function of and would be dictated by the user's SAS language program and the customer's input data.¹²

v. Abstraction-Filtration-Comparison Test (Altai/Gates Rubber test)

28. SAS Institute's expert Dr. Storer states that he "understand[s] that the Abstraction step divides a computer program into different levels, starting from the highest level of abstraction to the lowest level of abstraction." ¹³

- 30. The five "levels" are not higher or lower levels of abstractions of the program. The "main purpose" is the only item in the list that reflects the entirety of the program. The rest are not levels of abstraction of software—they are simply selected portions of the program. For example, Dr. Storer confirmed that the interface mechanism is not a collection of inputs and outputs at a higher level, that the interface mechanism is not a higher level of abstraction than the collection of inputs and outputs, and that the interface mechanism is not a more specific level of abstraction of the main purpose of the SAS software.¹⁵
- 31. Dr. Storer's report states that he "applied the Filtration step at each level of abstraction," but while he filters out the "Main Purpose" and "Interface Mechanism" levels, Dr. Storer's report does not reflect that he filtered out unprotectable elements from the remaining three

¹² See Goodnight Dep. Tr. at 60:8-10; *id.* at 60:23-61:4.

¹³ See Storer Copyright Report at 26.

¹⁴ See Storer Copyright Report at 26-27; Storer 4/20/2020 Dep. Tr. at 152:13-19.

 $^{^{15}}$ See Storer 4/20/2020 Dep. Tr. at 277:25-278:15.

levels.¹⁶ In his deposition, Dr. Storer confirmed that he did not filter anything out of these three remaining levels.¹⁷ With respect to the "collection of input formats," Dr. Storer testified that "this section does not try to pull out or segment or somehow pull apart this collection....I'm not filtering out some portion of the collection in this section." Regarding the "collection of output designs," Dr. Storer similarly testified that "this section is not excluding, you know, something, portions of the collection or something of that nature." When asked about the "naming and syntax" level, Dr. Storer basically testified that he did not go through to see if there were particular one that might need to be filtered out.²⁰

32. It is not disputed that a version of the SAS system software called SAS 76.2 is in the public domain:

The Court rejects any argument that SAS 76.2 does not constitute a "publication of any results" under Paragraph 17 of the USDA contract. SAS readily admits that SAS 76 was the culmination of three years of research beginning in 1973. See Affidavit of James H. Goodnight, Ph.D., Memorandum of SAS in Opposition to Motion to Dismiss filed by S & H, Page B-4. The obvious purpose of the clauses is to prevent a private party from gaining an exclusive benefit from publicly funded research. Such purpose is supported by sound public policy. There is nothing in the contract to suggest an unusually narrow interpretation of the phrase. To allow SAS to benefit from such a technical definition of the word "publication" would be in contravention of the clearly worded arms length agreement signed by both parties. Thus, the Court holds that SAS 76.2 is in the public domain pursuant to the agreement entered into with the United States Department of Agriculture.

 $^{^{16}\} See$ Storer Copyright Report at 30.

¹⁷ See Storer 4/20/2020 Dep. Tr. at 153:23-164:18.

 $^{^{18}}$ See Storer 4/20/2020 Dep. Tr. at 157:15-25 (full Q&A at 156:22-157:25).

¹⁹ See Storer 4/20/2020 Dep. Tr. at 159:6-8 (full Q&A at 158:16-159:24).

²⁰ See Storer 4/20/2020 Dep. Tr. at 160:19-164:18.

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See S & H Computer Sys., Inc. v. SAS Inst., Inc., 568 F. Supp. 416, 419 (M.D. Tenn. 1983).

33. Mr. Rubendall testified that his understanding of Dr. Goodnight's affidavit from the S&H case is that the DATA Step functionality existed in SAS 76.2, and that he had no information indicating that PROCs were not part of SAS 76.2.²¹

- 34. Dr. Goodnight acknowledged that SAS 76 is in the public domain.²² Additionally, Dr. Goodnight testified that some aspects of SAS 76 were copied by the next version after it and would have been pieces left in there that were not touched.²³ He also testified that for the version of the SAS system software immediately after SAS 76, the SAS 76 code existed and had changes made to it. ²⁴
- 35. The SAS 76 manual includes various identically named or nearly identically named PROCs as those identified by SAS Institute and its expert, such as ANOVA, CORR, GLM, NESTED, NLIN, TTEST, and VARCOMP.²⁵ SAS 76 also included many of the same syntactical, structural, and organizational elements and conventions as those identified by SAS Institute and its expert, including DATA steps, PROC steps, statements, general-purpose statements, options, parameters, informats, and formats.²⁶ Likewise, SAS 76 also had formatted output for information generated when SAS language programs are executed by the SAS software.²⁷

²¹ See Rubendall 2/26/2020 Dep. Tr. at 167:18-168:16.

²² See Goodnight Dep. Tr. at 63:13-15.

²³ See Goodnight Dep. Tr. at 65:23-66:24.

²⁴ See Goodnight Dep. Tr. at 67:1-13.

²⁵ See Jones Copyright Report at § 8.2.2.1, $\P\P$ 115-17.

²⁶ See Jones Copyright Report at § 8.2.2.1, ¶ 118.

²⁷ See Jones Copyright Report at § 8.2.2.1, ¶ 120.

- 36. PL/I was a programming language developed by IBM.²⁸ PL/I was capable of doing arithmetic operations, operations for comparisons, and logical manipulation of bit strings, in software.²⁹ PL/I included:³⁰
 - programs consisting of one or more blocks of statements called "procedures," which may be thought of as a subroutine and can invoke each other and be compiled separately or together, or be nested;
 - procedures containing declaration that define name and control allocation of storage;
 - a compiler that could determine for every name used in a program a complete set of attributes, which could be explicitly specified with a "DECLARATION" statement;
 - flexible storage allocation, including automatically included dynamic storage allocation;
 - facilities for input and output, under two broad classes of stream-oriented (data items selected one by one) and record-oriented (collection and transmission of data in data records);
 - flexible format in writing statements that just need to be terminated by a semicolon;
 - use of special characters (e.g., comma, period, assignment or equal symbol, colon, blank, single quotation mark, parentheses, arrow, percent symbol) with particular functions associated with them (e.g., "=" indicates assignment of values, "()" encloses lists or specifies information associated with various keywords", ";" terminates statements, commas separate elements of a list);
 - keywords that are identifiers that, when used in proper context, has a specifying meaning to the compiler, and can specify an action to be taken, the nature of data, or the purpose of a name (e.g., READ, DECIMAL, ENDFILE);
 - PL/I programs constructed from basic program elements called statements, including simple and compound statements, which make up larger program elements called groups and blocks;
 - statements, including keyword statements, assignment statements, null statement,

²⁸ See PL/I Manual at 1-2.

²⁹ See PL/I Manual at 17-19.

³⁰ See PL/I Manual at 17-19, 21-24, 64, 100, 101, 108, 110, 408-411.

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and compound statements;

- classification of statements as input/output, data movement and computational, program structure, control, exception control, and preprocessor;
- data-directed transmission that permits the user to transmit self-identifying data in input and output scenarios;
- stream-oriented transmission;
- declaring datasets within a procedure; and
- formats, constants, format items, format lists, keywords, options, procedures, statements.
- 37. SPSS software was capable of doing statistical correlation and analysis in software.³¹ In the SPSS software, procedure cards contained variables and called programs or subprograms related to statistical analysis.³² The SPSS software allowed the user to specify the form of the statistical analysis with option cards.³³ The SPSS software also had control cards that provides the format, function, and status of all nonprocedural cards.³⁴ The SPSS system allowed for data-modification and data-selection.³⁵ With these functional blocks, the SPSS software was able to perform various well known statistical analysis methods (e.g. regression analysis, scattergrams, T-tests, Pearson's R, ect.) on a user's input data.³⁶ The SPSS system was also capable of outputting results from its statistical analysis, including in the form of lists, tables, and graphs.³⁷

³¹ See SPSS Manual at 276.

³² See SPSS Manual at 411.

³³ See SPSS Manual at 411.

³⁴ See SPSS Manual at 540-41.

³⁵ See SPSS Manual at 555.

³⁶ See SPSS Manual at 560.

³⁷ See SPSS Manual at 274, 298-99.

The SPSS Manual provides examples of how to perform statistical analysis in the software. For example, using the PEARSON CORR procedure card, identifying variables, selecting an option card to run subprograms, and then displaying the output resulting from the user's request.³⁸

- 38. The term "PROC" itself is an abbreviation for a "procedure," which is a common term in practice in the computing industry.³⁹ In fact, "PROC" was a term that SAS Institute took from IBM's PL/1 language.⁴⁰
- 39. Dr. Storer testified that "people have been using graphs and tables and charts for a long time" and that they are "well known." Dr. Storer also testified that SAS Institute does not have copyrights over colors or column width. Similarly, Dr. Goodnight testified that SAS Institute did not develop the fonts used in its software and does not have copyrights on horizontal and vertical lines themselves.
- 40. Mr. Rubendall testified that SAS Institute did not have copyrights over a map of France (or its borders or regions) that was used in a SAS program using PROC GMAP.⁴⁴ With the SURVEYSELECT procedure, Mr. Rubendall described values in the three middle columns as

³⁸ See SPSS Manual at 281, 283, 287.

³⁹ See Jones Copyright Report at \S 8.2.2.13, \P 213.

⁴⁰ See Goodnight Dep. Tr. at 143:19-144:25. Moreover, Mr. Anthony Barr testified that, when developing the SAS language, he took a number of lexical features from PL/1 as well as features that were in SPSS and that he used algorithms and procedures from other sources like textbooks, manuals, and programs. See Barr Dep. Tr. at 15:13-16:24, 17:21-19:9; 26:2-18, 54:21-55:21.

⁴¹ See Storer 4/20/2020 Dep. Tr. at 288:3-9. Mr. Rubendall testified similarly. See Rubendall 2/26/2020 Dep. Tr. at 222:20-223:11. As did Mr. Barr in 1983. See Barr Dep. Tr. at 101:2-10.

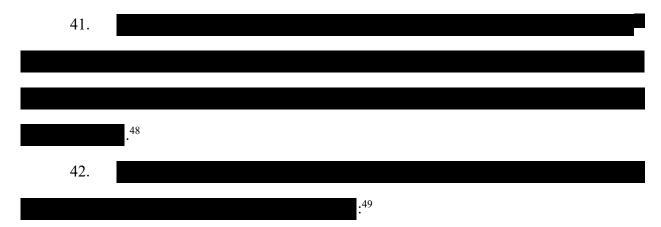
⁴² See Storer 4/20/2020 Dep. Tr. at 250:2-251:3.

⁴³ See Goodnight Dep. Tr. at 62:15-23, 71:21-72:3.

⁴⁴ See Rubendall 2/26/2020 Dep. Tr. at Ex. 46; id at.225:17-24; id. at 226:10-13.

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being part of the input data and values in the fourth column as being dictated by a user's if/then/else statement in the user program.⁴⁵ For a SAS program using SGSCATTER, Mr. Rubendall testified that the location of each point is determined by the input data itself.⁴⁶



 $^{^{45}}$ See Rubendall 2/26/2020 Dep. Tr. at Ex. 43 (highlighting indicates elements of the output results that are attributable to the user program or the input data); *id.* at 197:2-198:25.

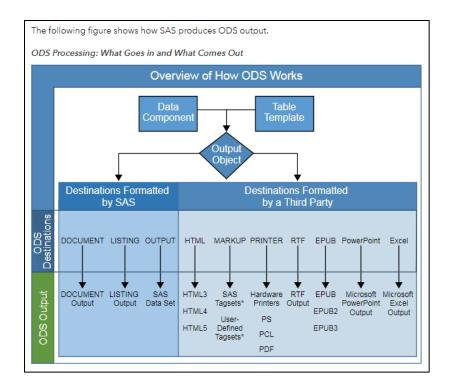
⁴⁶ See Rubendall 2/26/2020 Dep. Tr. at (highlighting indicates elements of the output results that are attributable to the user program or the input data); *id.* at 234:13-235:2.

⁴⁷ See Goodnight Depo. Tr. at 49:1-5; *id.* at 52:17-53:13.

⁴⁸ See, e.g., mva920-dv3270 Report, SASPROD_WPL_EDTEX 00347541-8100 at 8097; mva920-ds Report, SASPROD_WPL_EDTEX 00351432-3093 at 3092; mva920-VMI Report, SASPROD_WPL_EDTEX 00344691-695 at 695; mva920-W64 Report, SASPROD_WPL_EDTEX 00345682-92 at 92; mva920-xprnt Report, SASPROD_WPL_EDTEX 00346258-63 at 62; Request # 1249755, SASPROD_WPL_EDTEX 00420067-81 at 67; Request # 1324683, SASPROD_WPL_EDTEX 00420353-66 at 53; Request # 1273976, SASPROD_WPL_EDTEX 00420128-149 at 128.

⁴⁹ See Overview of How ODS Works, available at https://documentation.sas.com/?docsetId=odsproc&docsetTarget=p027b3wsp0yg9yn1tfqekatdtn 85.htm&docsetVersion=9.4&locale=en.

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43. As noted, Dr. Goodnight testified that the word PROC was taken from PL/1 from IBM.⁵⁰ The SAS 76 Manual actually confirms and explicitly states that the SAS Language and software was based on and took elements from PL/I.⁵¹ Also, Dr. Goodnight testified that the choices of what functions to include in the SAS software is often based on user input, suggestions, and vote as opposed to just internal express choices.⁵² Dr. Goodnight also testified that SPSS would be expected to have an analysis of variance and a regression routine, and that if someone is going to be in the data analysis business, they have to have the functions that users want and need and ask for.⁵³ Dr. Goodnight also testified that "regression analysis and those optimal numbers" were

⁵⁰ See Goodnight Dep. Tr. at 143:19-144:25.

⁵¹ SAS 76 Manual at 1, 37, 300, 319.

⁵² See Goodnight Dep. Tr. at 65:23-66:24. Dr. Goodnight also went on to testify that, if a user suggested that an output screen look a certain way, and SAS implemented that change, SAS would claim the copyright to that output screen. *Id.* at 73:3-8.

⁵³ *See* Goodnight Dep. Tr. at 56:11-57:6.

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something that mathematicians and statisticians had been doing for a long time and that SAS Institute "didn't invent the regression analysis."⁵⁴ Mr. Barr testified that the naming of PROCs, like PROC GLM for example, was essentially no different than a plus sign and there was "no difference from a linguistic standpoint."⁵⁵ Mr. Rubendall testified that the mathematical formula used in Brewer's PPS method, which is used in the SURVEYSELECT PROC was well-known and documented.⁵⁶

44. Mr. Anthony Barr, who came up with the idea of the SAS Language, testified that he took from PL/I a number of lexical features when creating a precursor to the SAS language.⁵⁷ Mr. Barr also testified about how these prior elements ended up in the SAS Language.⁵⁸ Additionally, Mr. Barr testified that the idea of the self-defining file, which is a powerful one or is the cornerstone for SAS, was an idea that he got from his Pentagon experience, that SPSS had gotten the same idea from an ancestor MIT program, and that because SPSS had features like value labels and variable labels (that were not in SAS 72), SAS Institute followed suit and included them in SAS 76.⁵⁹ Mr. Barr also testified that he used algorithms and procedures from other sources, such as statistical textbooks, the PL/I reference manual, and other programs like the ACM procedures.⁶⁰

⁵⁴ See Goodnight Dep. Tr. at 266:9-18.

⁵⁵ *See* Barr Dep. Tr. at 28:7-23.

⁵⁶ See Rubendall 2/26/2020 at 223:12-21; *id.* at 204:12-21; *id.* at Ex. 45.

⁵⁷ See Barr Dep. Tr. at 17:21-18:25 (concerning Mr. Barr's work prior to SAS Institute).

⁵⁸ See Barr Dep. Tr. at 18:26-19:9; id. at 26:2-18.

⁵⁹ See Barr Dep. Tr. at 15:13-16:24.

 $^{^{60}\} See$ Barr Dep. Tr. at 54:21-55:21.

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Introduction to the BMDP, SPSS, and OSIRIS Engines

The following read-only engines enable you to access files that were created with other vendors' software as if those files were written by SAS software:

BMDP

accesses system files that were created with BMDP Statistical Software.

SPSS

accesses SPSS files that were created under Release 9 of SPSS as well as SPSS-X system files and portable export files that are created by using the SPSS EXPORT command.

OSIRIS

accesses OSIRIS files.

You can use these engines in any SAS applications or procedures that do not require random access. For example, by using one of the engines with the CONTENTS procedure and its _ALL_ option, you can determine the contents of an entire SPSS file.

Similarly, SAS software supports processing of SQL (e.g., in PROC SQL).

D. Statute of Limitations

- 46. The statute of limitations for allegations of copyright infringement is three years. For allegations of continued infringement, each instance of actionable copying is treated as a separate act of infringement. *See* 17 U.S.C. § 507(b).
- 47. No civil action for copyright infringement can be maintained unless it is commenced within three years after the claim accrued. Thus, conduct occurring more than three years before the time when the claim for infringement accrues cannot alone be the basis for a finding of infringement.
 - 48. SASI filed this copyright lawsuit on July 18, 2018, making the relevant date under

The BMDP, SPSS, and OSIRIS Engines, available at https://documentation.sas.com/?docsetId=hosto390&docsetTarget=n0d9bzfc1vz788n1nhqh5vrto6y2.htm&docsetVersion=9.4&locale=en.

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the three-year statute of limitations for copyright infringement July 18, 2015.

- 49. The copying alleged by SASI in this case occurred prior to July 18, 2015.
- 50. World Programming did not have access to the SAS Learning Edition on or after July 18, 2015.
- 51. World Programming did not have access to the SAS System on the Computer Associates ("CA") mainframe on or after July 18, 2015.
- 52. World Programming has never seen, reviewed, or analyzed SAS System source code.
- 53. As World Programming has continued to develop WPS, the work done in the previous generations of WPS is often not included in new versions of WPS.

Robinson Dep. Tr. (30(b)(6), WPL CEO, Feb. 12, 2020) at

11:20-25; 12:20-24; 13:1-13.

E. Extraterritoriality

- 54. World Programming operates its business out of its headquarters in the United Kingdom. World Programming designs and implements its WPS software from its headquarters in the United Kingdom.
- 55. SASI's evidence of software development, alleged copying, and access to SAS materials such as SAS Manuals and the SAS Learning Edition occurred in the United Kingdom.
- 56. U.S. copyright law generally has no extraterritorial effect and cannot be invoked to secure relief for acts of infringement occurring outside the United States.⁶² Thus, domestic

⁶² See Van Stry v. McCrea, 2:19-CV-104-WCB, 2019 WL 8017783, at *2 (E.D. Tex. July 12, 2019) (citing Impression Prods., Inc. v. Lexmark Int'l, Inc., 137 S. Ct. 1523, 1537 (2017); Geophysical Serv., Inc. v. TGS-NOPEC Geophysical Co., 850 F.3d 785, 797 (5th Cir. 2017)).

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conduct—that is, conduct within the United States—is a necessary element of a copyright infringement plaintiff's claim.⁶³ And conduct that occurs outside of the United States does not violate United States law.⁶⁴ Also, where a copyright plaintiff claims contributory infringement predicated on direct infringement that occurred entirely extraterritorially, the plaintiff has stated no claim. ⁶⁵

F. Copyright Misuse

- 57. SASI is barred from prevailing on its action for copyright infringement because SAS Institute has misused its copyrights. The defense of copyright misuse forbids the use of copyright to secure an exclusive right or limited monopoly not granted by the Copyright Office and which it is contrary to public policy to grant.⁶⁶
- 58. SASI's copyright allegations in this case reflect that use of its copyrights over its software (SAS System) and manuals to claim copyright protection over unprotectable elements.
- 59. SASI claims copyright protection over the SAS Language, which is an idea or functional in nature, and is free to use without a license. SASI claims copyright protection over elements of its software, both literal and non-literal, that were in the public domain. SASI claims copyright protection over facts and data, such as the output of a map of a country. SASI claims copyright protection over the data that programmers programming in the SAS Language input. SASI claims copyright protection over performing mathematically or statistically correct analyses. SASI claims copyright protection over open-source or third party materials (such as open source

⁶³ See Geophysical Serv., Inc. v. TGS-NOPEC Geophysical Co., 850 F.3d 785, 797 (5th Cir. 2017).

⁶⁴ See Van Stry v. McCrea, 2:19-CV-104-WCB, 2019 WL 8017783, at *2 (E.D. Tex. July 12, 2019).

⁶⁵ See Geophysical Serv., Inc. v. TGS-NOPEC Geophysical Co., 850 F.3d 785, 799 (5th Cir. 2017).

⁶⁶ See Alcatel USA, Inc. v. DGI Techs., Inc., 166 F.3d 772, 792-93 (5th Cir. 1999); DSC Communications Corp. v. DGI Techs., Inc., 81 F.3d 597, 601 (5th Cir. 1996).

and non-SAS code described in Black Duck reports). SASI claims copyright protection over well-known conventions or techniques (such as representing data in tables or graphs and various common shorthand abbreviations for mathematical or statistical analyses). SASI claims copyright protection over functionality, such as executing SAS Language programs correctly or performing mathematical or statistical algorithms). SASI claims copyright protection over ideas (such as keyworks to describe functions or attributes where the name of the keyword is the idea of the function or the attribute). And SASI claims copyright protection over material created and owned by others (such as user SAS programs and resulting output that are owned by users).

60. By claiming copyright protection over these non-protectable elements, SASI is misusing its copyrights to secure an exclusive right or limited monopoly not granted by the Copyright Office and which is contrary to public policy.

III. PROPOSED CONCLUSIONS OF LAW

A. Unregistered Works

- 1. No civil action for infringement of the copyright in any United States work shall be instituted until preregistration or registration of the copyright claim has been made. *See* 17 U.S.C. § 411(a); *Reed Elsevier, Inc. v. Muchnick*, 559 U.S. 154, 171 (2010) ("[D]istrict courts may or should enforce sua sponte by dismissing copyright infringement claims involving unregistered works."); *Real Estate Innovations, Inc. v. Houston Ass'n of Realtors, Inc.*, 422 Fed. Appx. 344, 348 (5th Cir. 2011).
- 2. The effective registration doctrine generally allows a copyright owner of a derivative work to pursue an infringement action against a person infringing a pre-existing work, even when only the derivative work is registered. *See Aspen Tech, Inc. v. M3 Tech, Inc.*, 569 Fed. App'x 259, 269, n.28 (5th Cir. 2015). For the doctrine to be invoked, the following conditions

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have to be met: (1) the owner of the derivative work must also own the pre-existing work; (2) the author of both the registered derivative work and the unregistered pre-existing work should be the same; (3) the particular pre-existing work, on which a party brings an infringement action based on the registration of a derivative, must be incorporated in the derivative work, and (4) the registration certificate for the derivative work must properly identify the pre-existing work that is alleged to have been infringed. *See Gillani Consulting, Inc., v. Ferguson Enterprises, Inc.*, No. 3:07-cv-01488-O, Dkt. No. 221 at 4-5 (N.D. Tex. July 15, 2010) (citing *inter alia, Streetwise Maps, Inc. v. VanDam, Inc.*, 159 F.3d 739, 746-47 (2nd Cir. 1998); *Murray Hill Publications v. ABC Commc'ns*, 264 F.3d 622, 631 (6th Cir. 2001); *Oravec v. Sunny Isles Luxury Ventures, L.C.*, 527 F.3d 1218, 1229 (11th Cir. 2008); *I.M.S. Inquiry Mgmt. Sys. v. Berkshire Info. Sys., Inc.*, 307 F. Supp.2d 521, 529 (S.D.N.Y. 2004); 2-7 Melville B. Nimmer & David Nimmer, *Nimmer on Copyright* § 7.16 (July 2010)).

- 3. Here, SAS Institute has not asserted any registrations for a SAS software system release that properly identifies system release numbers 9.0, 9.1, 9.1.2, 9.1.3, 9.3, 9.3m1, and 9.3m2 as preexisting material. *See* Rubendall (02/26/2020) Dep. Tr. at 175:17-176:4, 178:20-179:11; *id.* at 173:12-176:4, 177:24-179:11. Additionally, SAS Institute has not set forth specific evidence affirmatively showing that these unregistered releases were, in fact, incorporated into the subsequent, derivative works. Accordingly, the effective registration doctrine does not apply as to SAS system release numbers 9.0, 9.1, 9.1.2, 9.1.3, 9.3, 9.3m1, and 9.3m2. *See, e.g., Gillani Consulting*, No. 3:07-cv-01488-O, Dkt. No. 221 at 5-9 (finding effective registration doctrine not to apply where registration did not properly identify pre-existing work).
- 4. Since SAS software system release numbers 9.0, 9.1, 9.1.2, 9.1.3, 9.3, 9.3m1, and 9.3m2 are unregistered works, and the effective registration doctrine does not apply, SAS Institute

cannot maintain a claim based on alleged infringement of these releases. See 17 U.S.C. § 411(a); see also Reed Elsevier, 559 U.S. at 171 ("[D]istrict courts may or should enforce sua sponte by dismissing copyright infringement claims involving unregistered works."); Real Estate Innovations, 422 Fed. Appx. at 348. Any claims based on these system release numbers are dismissed.

B. Copyrightability

i. Section 102(b) of the Copyright Act

- 5. "Copyright protection subsists...in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device." 17 U.S.C. § 102(a).
- 6. "The mere fact that a work is copyrighted does not mean that every element of the work may be protected. Originality remains the *sine qua non* of copyright; accordingly, copyright protection may extend only to those components of a work that are original to the author." *Feist Publications, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 348 (1991) (citations omitted).
- 7. There are a variety of constraints on the copyrightability of expressions. In particular, "[i]n no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work." 17 U.S.C. § 102(b). "Other materials not subject to copyright include facts, information in the public domain, and scenes a faire, *i.e.*, expressions that are standard, stock or common to a particular subject matter or are dictated by external factors." *Eng'g Dynamics, Inc. v. Structural Software, Inc.*, 26 F.3d 1335, 1344 (5th Cir. 1994) (citation omitted), *opinion supplemented on denial of reh'g*, 46 F.3d

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408 (5th Cir. 1995). "Additionally, when an idea can be expressed in very few ways, copyright law does not protect that expression, because doing so would confer a *de facto* monopoly over the idea. In such cases idea and expression are said to be merged." *Kepner-Tregoe, Inc. v. Leadership Software, Inc.*, 12 F.3d 527, 533 (5th Cir. 1994). Relatedly, the "Copyright Act does not protect fragmentary words or short phrases...." *Taylor v. IBM*, 54 F. App'x 794 (5th Cir. 2002) (citing 37 C.F.R. § 202.1(a) (2001)). Also, the "scenes a faire doctrine excludes from copyright protection work serving functional purposes or work that is dictated by external factors such as particular business practices." *Computer Mgmt. Assistance Co. v. Robert F. DeCastro, Inc.*, 220 F.3d 396, 401 (5th Cir. 2000).⁶⁷

- 8. Based on these principles, the following are examples of material excluded from copyright protection:⁶⁸
 - ideas, procedures, processes, or methods for doing, making, or building things;
 - scientific or technical methods or discoveries;
 - mathematical principles, formulas, algorithms, or equations;
 - and an extrapolation or application of an idea or system that always produces substantially the same result, such as a computation of interest based upon a particular rate;
 - typefaces (including type font) and mere variations of typographic orientation;
 - and a general format and/or layout that is a template of expression.

⁶⁷ See also Feist, 499 U.S. at 362-63 (in considering question of copyrightability, finding failure to satisfy originality requirement by selection, coordination, and arrangement that alphabetized entries by name because arranging names alphabetically "is an age-old practice, firmly rooted in tradition and so commonplace that it has come to be expected as a matter of course.").

⁶⁸ See U.S. Copyright Office, Compendium of U.S. Copyright Office Practices § 313.3(A), (D), (E) (3d ed.), available at https://www.copyright.gov/comp3/chap300/ch300-copyrightable-authorship.pdf (2017); see also 17 U.S.C. § 102(b); 37 C.F.R. § 202.1(a), (b), (e).

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- 9. Also, copyright protection does not extend to:⁶⁹
 - merely applying colors to aid in the visual display of a graph, chart, table, device, or other article;
 - blank graphs, charts, tables, and figures that are designed for recording information and do not in themselves convey information; and
 - ideas for graphs, charts, tables, and figures or the overall design of a graphing, charting, or tabling method or template.
- 10. In the Fifth Circuit, issues relating to the constraints on protectability of expression (e.g., merger and scenes á faire) are addressed as part of the copyrightability question. See Mason v. Montgomery Data, Inc., 967 F.2d 135, 138, n.5 (5th Cir. 1992).
- 11. SAS Institute bears the burden of proving infringement, and proving its assertion that the asserted works are copyrightable is part of that burden of proof.
- 12. The copyright registrations in evidence do not raise a presumption regarding copyrightability of any elements of the works that are not identified on the face of the registrations. Because the asserted works are not identified on the face of the registrations at issue, SAS Institute is not entitled to a presumption of copyrightability of its asserted works.
- 13. Even if SAS Institute is entitled to a presumption of copyrightability, which it is not, the copyright registrations in evidence do not shift the burden of *persuasion* on World Programming, and World Programming has come forward with evidence sufficient to satisfy any burden of production.
- 14. Section 102(b) of the Copyright Act provides that "[i]n no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system,

⁶⁹ See U.S. Copyright Office, Compendium of U.S. Copyright Office Practices §§ 906.3, 921 (3d ed.), available at https://www.copyright.gov/comp3/chap900/ch900-visual-art.pdf (2017); see also 37 C.F.R. §§ 202.1(a), (c).

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method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work." Thus, ideas, systems, procedures, and methods of operation are unprotected, even if they are part of "an original work of authorship." This means, for example, that even if a larger work is copyrightable (e.g., a book about the SAS programming language or methods of operating the SAS System), the copyright for that book does not extend to the ideas, systems, procedures, or methods of operation that are part of that book. SAS Institute must prove that each element it claims was infringed is, by itself, copyrightable.

ii. The SAS Language is Not Protectable Under Copyright Law.

- 15. The SAS Language is a programming language through which third parties express themselves. The idea of the SAS Language is not protectable copyright. The particular ideas within the SAS Language for performing statistical analyses—such as writing a SAS Language Program to generate a mean average, for example—is also not protectable copyright. Further, the the SAS System copyrights cover only the creative expressions contained within that computer software, not the methods of operation, procedures, or system itself. *See, e.g., Hutchins v. Zoll Med. Corp*, 492 F.3d 1377, 1383-84 (Fed. Cir. 2007) ("copyright does not protect the technologic process independent of the program that carries it out"; "Mr. Hutchins' copyright is limited to preventing the copying of the specific computer program that he developed").
- Dynamics, Inc. v. Structural Software, Inc., 46 F.3d 408, 409-10 (5th Cir. 1995), supplemental opinion clarifying the scope of 26 F.3d 1335 (5th Cir. 1994) (holding that "copyright only protects originality of user interface to the extent that the selection of variable inputs from the universe of potential inputs reflects non-functional judgments," and explaining that "[t]his opinion cannot properly be read . . . to deter achieving compatibility with other models or to the practice employed

by users of programs of analyzing application programs to 'read' the file formats of other programs") (citing Sega Enters. Ltd. v. Accolade, Inc., 977 F.2d 1510, 1524 (9th Cir. 1992); Gates Rubber Co. v. Bando Chem. Indus., Ltd., 9 F.3d 823, 838 (10th Cir. 1993)). See also Incredible Techs., Inc. v. Virtual Techs., Inc., 400 F.3d 1007, 1012 (7th Cir. 2005) ("The exclusion of functional features from copyright protection grows out of the tension between copyright and patent laws. Functional features are generally within the domain of the patent laws."); CMM Cable Rep, Inc. v. Ocean Coast Props., 97 F.3d 1504, 1519 (1st Cir. 1996) (copyright does not protect "forms of expression dictated solely at functional considerations") (quoting 1 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 2.01[B]); SAS Inst., Inc. v. World Programming Ltd., Case C-406/10 (E.U. Ct. Justice May 2, 2012), at ¶¶ 23-24, 29-46 ("[N]either the functionality of a computer program nor the programming language and the format of data files used in a computer program in order to exploit certain of its functions constitute a form of expression of that program and, as such, are not protected by copyright in computer programs for the purposes of [Directive 91/250].").

- 17. The SAS Language is itself functionally required for compatibility with SAS Language programs, which third parties are free to write. Copyright protection therefore does not extend to the SAS Language.
- 18. Regardless of whether the process of writing the SAS Language required "creativity," it is not creative expression—it is system for expression, for others to program computer programs with. And the form of that expression is limited and dictated by the SAS Language.
- 19. Further, the SAS Language is an idea conceived of by Mr. Barr, not itself a copyrightable creative expression. The number of elements within the SAS Language, and their

interrelationship, do not render them copyrightable. Section 102(b) of the Copyright Act precludes copyright protection for the SAS Language. "In no case" can an idea, a system, procedure, or method of operation by protected by copyright.

C. There is No Presumption of Copyrightability of Non-Literal Elements.

- 20. Certificates of registration do not provide an irrebuttable presumption of copyrightability. See Lakedreams v. Taylor, 932 F.2d 1103, 1108, n.10 (5th Cir. 1991) ("Regardless, the certificate does not create an irrebutable presumption of originality."); Norma Ribbon & Trimming, Inc. v. Little, 51 F.3d 45, 47 (5th Cir. 1995) ("However, certificates create only a rebuttable presumption that the copyrights are valid."). Additionally, that a work was copyrighted does not mean that all elements of the work are copyrightable or protectable. See Feist Publications, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 348 (1991) (citations omitted) ("The mere fact that a work is copyrighted does not mean that every element of the work may be protected. Originality remains the sine qua non of copyright; accordingly, copyright protection may extend only to those components of a work that are original to the author."); see also Oracle Am., Inc. v. Google Inc., 810 F. Supp. 2d 1002, 1009 (N.D. Cal. 2011) (finding that "a certificate of registration may entitle its holder to a presumption of copyright validity as to the registered work" but not "a presumption of originality as to specific elements of a registered work") (emphasis in original).
- 21. Moreover, before issuing a certificate of registration, the Register of Copyrights determines only that "the material deposited constitutes copyrightable subject matter and that the other legal and formal requirements of this title have been me." See 17 U.S.C. § 410(a) (emphasis added). Additionally, a certificate of registration can provide "prima facie evidence of the validity of the copyright and of the facts stated in the certificate." See 17 U.S.C. § 410(c) (emphasis added). There is no authority for the notion that a certificate of registration can provide prima facie

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evidence of facts not stated in the certificate or of the copyrightability of elements not evidence in the material deposited with the Copyright Office. *See* 17 U.S.C. § 410(a), (c).

- 22. The only material deposited by SAS Institute was source code. *See* Rubendall (02/26/2020) Dep. Tr. at 172:2-173:7. Thus, the Copyright Office would have only made a determination as to the copyrightability of the source code of the SAS software system releases, and not any non-literal elements, which were not (and being "non-literal," could not have been) deposited with the Copyright Office. *See* 17 U.S.C. § 410(a); *see also Lakedreams*, 932 F.2d at 1108, n.10; *Norma Ribbon & Trimming*, 51 F.3d at 47; *Oracle*, 810 F. Supp. 2d at 1009.
- 23. None of the asserted registrations include a description or state facts regarding any non-literal elements of the SAS software system releases. See generally SAS 79.5 copyright registration no. TXU96-620, Bates stamp SASPROD WPL EDTEX 00258803-04; SAS base software for the PC: release 6.01, copyright registration no. TX 1-735- 261, Bates stamped SASPROD WPL EDTEX 00258783-84; SAS Learning Edition 4.1, copyright registration no. TX 6-973-239, Bates stamped SASPROD WPL EDTEX 00258953-62; The SAS copyright registration TX6-059-105, System release, 8.2, no. Bates SASPROD WPL EDTEX 00258875-76; SAS System release, v. 9.2, copyright registration no. TX 7-113-539, Bates stamped SASPROD WPL EDTEX 00258967-69; SAS System release, v.9.4, copyright registration no. TX 8-029-653, Bates stamped SASPROD WPL EDTEX 00258963-66; SAS System release, v. 9.4m3, TX 8-050-428, Bates stamped SASPROD WPL EDTEX 01648410-11; see also Rubendall (02/26/2020) Dep. Tr. at 165:24-166:4, 169:21-170:3, 171:16-172:1. Thus, the asserted registrations do not provide any prima facie evidence of the copyrightability of any particular non-literal element of the asserted SAS software system releases. See 17 U.S.C. § 410(c); see also Lakedreams, 932 F.2d at 1108, n.10; Norma

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Ribbon & Trimming, 51 F.3d at 47; Oracle, 810 F. Supp. 2d at 1009. Neither do the asserted registrations indicate that they are for a "compilation" or "collective" work. Thus, similarly, the asserted registrations do not provide any prima facie evidence of the copyrightability of any particular compilation or collection. See 17 U.S.C. § 410(c); see also Lakedreams, 932 F.2d at 1108, n.10; Norma Ribbon & Trimming, 51 F.3d at 47; Oracle, 810 F. Supp. 2d at 1009.

- 24. Furthermore, establishing copyrightability is SAS Institute's burden as a part of its copyright infringement claim. See Eng'g Dynamics, 26 F.3d at 1340; Gen. Universal Sys., Inc. v. Lee, 379 F.3d 131, 142, 144 (5th Cir. 2004); see also SCOTT ON INFO. TECH. L. § 2.51 (3d Ed. 2020-1 Supplement) ("The burden is on the plaintiff to provide a complete Altai analysis.") (citing Gen. Universal Sys., 379 F.3d at 144). Thus, even if the presumption provided by a copyright registration extended to copyrightability of elements—which, as shown above, it does not—at most, the presumption would shift the burden of production to World Programming to present evidence rebutting the presumption. See FED. R. EVID. 301. The burden of persuasion would not shift to World Programming and would stay with SAS Institute, since the element of copyrightability is an element of its claim. See FED. R. EVID. 301. If such a presumption applies as to copyrightability (again, it does not), as detailed below under the Abstraction-Filtration-Comparison analysis, World Programming has presented sufficient evidence to rebut such a presumption.
 - D. SAS Institute has not met its burden to articulate the sequence, structure, and organization (or the selection, coordination, and arrangement) of the asserted "collection" such that it can establish that the "collection" is copyrightable.
- 25. "A 'compilation' is a work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship. The term 'compilation' includes collective

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works." 17 U.S.C. § 101.

- 26. "A 'collective work' is a work, such as a periodical issue, anthology, or encyclopedia, in which a number of contributions, constituting separate and independent works in themselves, are assembled into a collective whole." 17 U.S.C. § 101.
- 27. "The copyright in a compilation or derivative work extends only to the material contributed by the author of such work, as distinguished from the preexisting material employed in the work, and does not imply any exclusive right in the preexisting material. The copyright in such work is independent of, and does not affect or enlarge the scope, duration, ownership, or subsistence of, any copyright protection in the preexisting material." 17 U.S.C. § 103(b).
- 28. "[C]opyright protects only the elements that owe their origin to the compiler—the selection, coordination, and arrangements of facts. No matter how original the format, however, the facts themselves do not become original through association.... This inevitably means that the copyright in a factual compilation is thin." *See Eng'g Dynamics, Inc. v. Structural Software, Inc.*, 26 F.3d 1335, 1346 (5th Cir. 1994), *opinion supplemented on denial of reh'g*, 46 F.3d 408 (5th Cir. 1995) (quoting *Feist*, 499 U.S. at 359, 349) (internal citations and quotation marks omitted). The same reasoning and logic applies to compilations of other unprotectable elements. *Cf. Eng'g Dynamics*, 26 F.3d at 1342-43 (identifying the "unprotectable elements of ideas, processes, facts, public domain information, merger material, scenes a faire material"); *id.* at 1348 (citing to *Feist* regarding "thin" copyright protection, finding the same cautious approach appropriate with respect to functional or standardized technical elements, and noting that such works "may lie very near the line of uncopyrightability").
- 29. "The authorship involved in selecting, coordinating, and arranging the preexisting material or data must be objectively revealed in the deposit copy(ies)" submitted to the Copyright

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Office. See U.S. Copyright Office, Compendium Ch. 300, § 312.2 (3d ed.), available at https://www.copyright.gov/comp3/chap300/ch300-copyrightable-authorship.pdf (2017) (citing Feist, 499 U.S. at 358). "For instance, a compilation of statistics is not copyrightable if the author's selection, coordination, or arrangement of data is not evident in the claim" submitted to the Copyright Office. See id.

- 30. As noted above, when SAS Institute applies to register a copyright in a SAS software system release, SAS Institute submits only a limited excerpt of the software's source code as the deposit copy. *See* Rubendall (02/26/2020) Dep. Tr. at 172:2-173:7. But the asserted registrations do not include a description or state facts regarding any non-literal elements of the SAS software system releases. *See* Rubendall (02/26/2020) Dep. Tr. at 165:24-166:4, 169:21-170:3, 171:16-172:1. Thus, there is also no evidence or description of the asserted "collection" of the "input formats" or "output designs" or how they are supposedly sequenced, structured, and organized in the asserted SAS software works. Similarly, the selection, coordination, and arrangement of the asserted "input formats" or "output designs" is not "objectively revealed in the deposit copy(ies)" or "evidence in the claim." *See* U.S. Copyright Office, Compendium Ch. 300, § 312.2.
- 31. Moreover, SAS Institute has not articulated how the "input formats" or "output designs" are supposedly sequenced, structured, and organized in the asserted SAS software works. SAS Institute's expert included in his report a diagram that purported to graphically illustrate how World Programming's WPS code base is organized and structured. *See* Storer Rpt. at Ex. 5. But he provides no such corresponding diagram of SAS software to graphically illustrate how the "input formats" or "output designs" are supposedly sequenced, structured, and organized in the asserted SAS software code base(s). Similarly, SAS Institute's expert included in his report a list

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of file paths of World Programming's WPS code base in an effort to show how it is sequenced, structured, and organized. *See* Storer Rpt. at Ex. 5. But again, he provides no such corresponding list for SAS software to illustrate how the "input formats" or "output designs" are supposedly sequenced, structured, and organized in the asserted SAS software code base(s). *See* Storer Rpt. at Ex. 6. In one exhibit, SAS Institute's expert provides an exhibit where he includes limited excerpts from his list in his Exhibit 6 and purports to compare them to limited excerpts of a SAS manual. *See* Storer Rpt. at Ex. 4. However, the SAS manual is not the SAS software. And SAS Institute's expert does not provide specific evidence establishing that the SAS manual evidences how the "input formats" or "output designs" are supposedly sequenced, structured, and organized in the asserted SAS software code base(s).

- 32. SAS Institute has made arguments and identified some testimony about the development process of the SAS system software, and it has contended that there was a "creative" process or a "creative" process and describes some general design considerations and the general develop process. *See* Dkt. No. 164 at 7-14. But effort and labor do not confer copyright protection. *See Feist*, 499 U.S. at 352-57 (rejecting "sweat of the brow" doctrine and detailing legislative amendments to Copyright Act of 1976 designed to prevent courts from extending copyright protection to unprotectable elements of compilations). Furthermore, the Supreme Court explained that courts "should focus on the *manner* in which the collected facts have been selected, coordinated, and arranged." *See id.* at 358 (emphasis added). As outlined above, SAS Institute does not explain or describe what that "manner" such that the Court could make this determination.
- 33. Thus, SAS Institute has not met its burden to articulate the sequence, structure, and organization (or the selection, coordination, and arrangement) of the asserted "collection" such that it can establish that the "collection" is copyrightable.

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- E. SAS Institute's copyrights over its SAS system software do not extend to the outputs generated as a result of the execution of users' SAS programs.
- Works must be "original" and "fixed in any tangible medium of expression" to be copyrightable. See 17 U.S.C. § 102(a). By definition, a work is "fixed" when "its embodiment in a copy...is sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration." See 17 U.S.C. § 101 (definition of "fixed"). A copyright over computer program can extend to its menus and screen displays. See Gen. Universal Sys., 379 F.3d at 142. But it generally is the screen display of the copyrighted program, i.e., generated by the code under copyright. See U.S. Copyright Office, Compendium of U.S. Copyright Office Practices § 721.10(A) (3d ed.) (2017) , available at https://www.copyright.gov/comp3/chap700/ch700-literary-works.pdf ("As a general rule, a computer program and the screen displays generated by that program are considered the same work, because the program code contains fixed expression that produces the screen displays.").
- 35. However, in various situations, users of the copyrighted program may contribute input or have another role in bringing about the generation of output from the copyrighted programs. In such situations, if the copyrighted program does the lion's share of the work in creating the output, and the user's role is not more than marginal such that the output reflects the program's contents, then the copyright protection afforded to the program may extend to the program's output. *See, e.g., Digital Drilling Data Sys. LLC v. Petrolink Servs. Inc.*, No. 4:15-CV-02172, 2018 WL 2267139, at *6 (S.D. Tex. May 16, 2018) (finding user's role marginal when user merely filled in pre-made forms); *Torah Soft Ltd. v. Drosnin*, 136 F. Supp. 2d 276, 283 (S.D.N.Y. 2001) (finding user's role marginal when user merely entered simple search terms in a database); *see also* 4 NIMMER ON COPYRIGHT § 13.03[F] (reciting test and quoting *Torah Soft*). On the other hand, if the user's role or contribution is more than marginal, the copyright protection afforded to

the program does not extend to the program's output. See, e.g., Rearden LLC v. Walt Disney Co., 293 F. Supp. 3d 963, 970–71 (N.D. Cal. 2018) (finding users' role was more than marginal such that the output did not reflect the program's contents even when program did a "significant amount of work" to transform two-dimensional information into three-dimensional outputs); Design Data Corp. v. Unigate Enter., Inc., 847 F.3d 1169, 1173 (9th Cir. 2017) (finding plaintiff failed to set forth sufficient evidence that users' input of data was marginal when data was used by CAD program that also used building and engineering codes to create steel detailing files).

36. Here, SASI has similarly not presented evidence establishing that the SAS software does the lion's share of the work in generating outputs and that the user's input is not more than marginal. Rather, the evidence shows that the user's input or role is greater than marginal and that the SAS software does not do the lion's share of the work. As noted above, referring to an example with the SURVEYSELECT procedure, Mr. Rubendall testified that the user's SAS language program was a significant component of the output. He also testified that without the user's SAS language program, the SAS software would not know what to do with respect to creating output. Rubendall also characterized the SAS software as filling in gaps that the user may not have specified but that the user's SAS language program is describing the problems to be solved and guiding how to solve them. Like Mr. Rubendall, another SAS corporate representative Mr. Whitcher testified that he agreed "that the SAS System performs no computation that would return a result set until the user enters a series of commands and

⁷⁰ See Jones Copyright Report at § 8.2.3.

⁷¹ See Rubendall 2/26/2020 Dep. Tr. at 210:14-211:13.

⁷² See Rubendall 2/26/2020 Dep. Tr. at 221:1-20.

⁷³ See Rubendall 2/26/2020 Dep. Tr. at 222:11-18.

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programs."⁷⁴ More directly, Dr. Goodnight testified that the "output is going to be dictated by the customer's SAS program."⁷⁵ Similarly, SAS Institute's technical expert Dr. Storer agreed that if you had two different user SAS language programs invoking different PROCs, the outputs would be different.⁷⁶ Additionally, when asked whether he agreed that the output of a SAS language program is governed by the SAS language program and its underlying data set, Dr. Storer testified that the output is "governed by the program that the user – the way the user chose to express themselves in the form of that program resulted in a certain output."⁷⁷ The SAS fact witnesses' and Dr. Storer's testimonies confirm that the output owes its origin to the user, not the SAS system software. *See Eng'g Dynamics*, 26 F.3d at 1346; *Feist*, 499 U.S. at 359, 349.

37. SAS Institute has raised arguments about "default" designs in the outputs. However, even then, SAS Institute has not shown that the SAS software system does the lion's share of the creativity and that when the user's input is not more than marginal. The users' input here is unlike the entry of simple search terms like in *Torah*, or the filling in of pre-made forms like in *Digital Drilling*. Instead, this case is more akin to *Rearden LLC v. Walt Disney Co.*, 293 F. Supp. 3d 963, 970–71 (N.D. Cal. 2018), where there is a wide range of possibilities, all up to the user, of what can be done.⁷⁸ Here, that "defaults" might be reflected in some of these outputs does

⁷⁴ *See* Whitcher Dep. Tr. at 223:5-224:23.

⁷⁵ See Goodnight Dep. Tr. at 60:8-10, 60:23-61:4.

⁷⁶ See Storer 4/20/2020 Dep. Tr. at 281:16-282:11.

⁷⁷ *See* Storer 4/20/2020 Dep. Tr. at 282:16-22.

⁷⁸ In *Rearden*, the court found that a copyright over a computer program for generating 3D models did not extend to the program's 3D outputs, even when the "program does a significant amount of work to transform the two dimensional information captured on camera into three dimensional Captured Surface and Tracking Mesh outputs." *See* 293 F. Supp. 3d at 970–71. The court there found that users' contributions were substantial and included actors making facial motions that determined output and directors instructing the performance. *See id.* The court also found that

not take away from the substantiality of the users' contributions in writing and submitting the SAS language programs.⁷⁹ The primary SAS user interface is a typical code or text editor with blank space. *See* Jones Copyright Report at ¶ 286, Ex. F at 1, 4 (showing SAS editor). The user can use to write code that addresses a wide range of possibilities in terms of analyzing data and solving mathematical and statistical problems.⁸⁰

38. Additionally, evidence supports the conclusion that substantial efforts are involved in the collection, transformation, processing, and analyzing of the dataset provided by the user to the SAS system software. *See* Jones Copyright Report at ¶¶ 225-27. In particular, collecting a dataset involves a process that has to be designed and executed and includes deciding what variables to select, what types of variables to include, and how to encode results as values within the dataset. *See id.* at ¶ 225. Then, the dataset has to be transformed into a form that is suitable for analysis, and the data transformation has to be designed and dictated by the user's SAS language

unlike *Torah*, where a user merely inputs a word into the program, the users there could provide the program with a wide range of facial expression (*i.e.*, a wide range of inputs).

⁷⁹ Also, there is evidence in the record that a user can write programs such that all or nearly all of the output is dictated by the user's SAS language program and not by the SAS system software. *See, e.g.*, Rubendall 2/26/2020 Dep. Tr. at 210:14-211:13 (after highlighting "all of the outputs" to indicate they were dictated by the SAS language program, testifying that in that example, the output is from the user's SAS language program, the SAs language program is a significant component to the output, and the user of the SAS language program "explicitly stated what they wanted to happen"); *id.* at 241:21-242:20 (after highlighting almost all of outputs to indicate they were dictated by the SAS language program and identifying numerous elements that would not exist without the user's SAS language program, also testifying that in that scenario the user's SAS language program "is very explicit" about what to do); *see also* Jones Copyright Report at ¶ 228 (explaining that users of SAS software are sophisticated and make a choice to accept and not change default settings and that there is not a take-it-or-leave scenario with respect to outputs).

 $^{^{80}}$ See Rubendall 2/26/2020 Dep. Tr. at 221:1-20, 222:11-18; Whitcher Dep. Tr. at 223:5-224:23; Goodnight Dep. Tr. at 60:8-10, 60:23-61:4.

program or by the user in a different program outside of the SAS software. *See id.* at ¶ 226. Additionally, the user makes substantial contributions in terms of deciding how to write the SAS language program to analyze the data, including deciding and selecting which procedures to call, how and in what order to call them, which options to use when calling them *See id.* at ¶ 227. Even if the SAS software might do a "significant amount of work" for some programs, that "cannot be enough." *See Rearden*, 293 F. Supp. 3d at 970–71. The users' "role in creating the end-product is not so 'marginal' that the output reflects the program's contents." *See id.* (internal quotations omitted).

- 39. SASI has identified a sample SAS program invoking the UNIVARIATE. *See* Dkt. No. 296 at 11-12. However, even in that example, the user must select which PROC to invoke, must define and provide input data on which the statistical analyses are to be conducted, must select and define the variable name "Score," and must decide to include a title and invoke TITLE. That is significant user contribution even for a short program. It is more than marginal. Also, a "univariate" analysis is a conventional type of statistical analysis done on one variable. *See* SAS 76 Manual at 92, 93, 127, 180, 258 (describing "univariate" statistics). So, the selection of a conventional description for a statistical analysis, and conventional constituent data points incident to that analysis, does not contribute towards the lion's share of the creativity.
- 40. In sum, SAS Institute has not shown that any copyright over its SAS system software extends to the outputs generated as a result of the execution of users' SAS programs.

F. Abstraction-Filtration-Comparison Test (Altai/Gates Rubber test)

41. "[C]omputer programs are in principle entitled to copyright protection." *Eng'g Dynamics*, 26 F.3d at 1341 (footnote omitted).⁸¹ "This protection extends not only to the 'literal'

⁸¹ "A 'computer program' is a set of statements or instructions to be used directly or indirectly in

elements of computer software—the source code and object code—but also to a program's nonliteral elements, including its structure, sequence, organization, user interface, screen displays, and menu structures." *Gen. Universal Sys.*, 379 F.3d at 142 (footnotes omitted).⁸²

- 42. "However, copyright protection does not extend to the methods that are performed with program guidance...." *Hutchins v. Zoll Med. Corp.*, 492 F.3d 1377, 1383 (Fed. Cir. 2007) (citing *Lotus Development Corp. v. Borland International, Inc.*, 49 F.3d 807, 818 (1st Cir. 1995), *aff'd*, 516 U.S. 233 (1996) ("a text describing how to operate something would not extend copyright protection to the method of operation itself; other people would be free to employ that method and to describe it in their own words")). In other words, "copyright does not protect the technologic process independent of the program that carries it out; that is, the copyright covers the way the process is described in the written or electronic form of the computer program, but does not cover the process independent of the copyrighted program." *See id*.
- 43. "[T]he law is more protective of highly original and highly expressive works than it is of functional and nonfiction works. This distinction is recognized in *Feist*, where, because the allegedly infringed work was a collection of facts, the Court noted that any copyright was 'thin.' The same cautious approach to protection is appropriate for computer user interfaces. To the extent that they are highly functional, or, like the output formats in this case, to the extent that they contain highly standardized technical information, they may lie very near the line of uncopyrightability." *Eng'g Dynamics*, 26 F.3d at 1348 (citing authorities that required or found verbatim or virtually identical copying to constitute infringement of works with narrow protection).

a computer in order to bring about a certain result." 17 U.S.C.A. § 101.

⁸² "Source code is the programming language readable by human programmers; object code is the binary expression that controls the computer hardware." *Eng'g Dynamics*, 26 F.3d at 1341, n.7.

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44. "To assess a claim of software infringement, [the Fifth Circuit has] generally endorsed the 'abstraction-filtration-comparison' test first outlined by the Second Circuit in *Altai* and refined by the Tenth Circuit in *Gates Rubber Co. v. Bando Chemical Industries, Ltd.*" *See Gen. Universal Sys.*, 379 F.3d at 142 (footnote omitted). The test is summarized as follows:

First, in order to provide a framework for analysis, we conclude that a court should dissect the program according to its varying levels of generality as provided in the abstractions test. Second, poised with this framework, the court should examine each level of abstraction in order to filter out those elements of the program which are unprotectable. Filtration should eliminate from comparison the unprotectable elements of ideas, processes, facts, public domain information, merger material, scenes a faire material, and other unprotectable elements suggested by the particular facts of the program under examination. Third, the court should then compare the remaining protectable elements with the allegedly infringing program to determine whether the defendants have misappropriated substantial elements of the plaintiff's program.

Eng'g Dynamics, 26 F.3d at 1342-43 (quoting Gates Rubber Co. v. Bando Chemical Indus., 9 F.3d 823, 834 (10th Cir. 1993)).83

A5. Regarding the abstraction step, "[t]he purpose of segmenting a computer program into successive levels of generality is to 'help a court separate ideas [and processes] from expression and eliminate from the substantial similarity analysis those portions of the work that are not eligible for copyright protection." *Eng'g Dynamics*, 26 F.3d at 1343 (quoting 3 NIMMER ON COPYRIGHT, § 13.03[F] at 13–102.17). Six levels of abstraction recognized among computer programmers include: (1) the main purpose; (2) system architecture; (3) abstract data types; (4) algorithms and data structures; (5) source code; and (6) object code. *See id.* at 1343, n.10. These levels of abstraction have been approved by at least the Tenth Circuit in *Gates Rubber*, whose

⁸³ See also id. (citing Computer Assocs. Int'l, Inc. v. Altai, Inc., 982 F.2d 693, 706-11 (2d Cir. 1992); 3 NIMMER ON COPYRIGHT, § 13.03[F] (advocating same "successive filtering" test)).

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refinement of the abstraction-filtration-comparison was adopted by the Fifth Circuit. *See id.* at 1343, n.10; *Gates Rubber*, 9 F.3d at 835; *Gen. Universal Sys.*, 379 F.3d at 142.

- 46. "The filtration component of the analysis seeks to isolate noncopyrightable elements from each particular level of a program. Copyright protects the expression of ideas, not the ideas themselves, and it does not protect processes, methods or scientific discoveries. Other materials not subject to copyright include facts, information in the public domain, and scenes a faire, i.e., expressions that are standard, stock or common to a particular subject matter or are dictated by external factors." See Eng'g Dynamics, 26 F.3d at 1344 (citing Gates Rubber, 9 F.3d at 837–38); see also 17 U.S.C. § 102(b) ("In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work."). If materials derive from material developed from others, that would also lack requisite originality, and so would minor modifications to such material from others. See Eng'g Dynamics, 26 F.3d at 1347, n.14. Also, mathematical constants, even if "researched and compiled" for a computer program "are not copyrightable, however, because they are facts, despite the fact that [the copyright holder] may have discovered them through great expenditure of time or labor. See id. at 1349 (citing Feist, 499 U.S. at 347, 111 S. Ct. at 1288; Gates Rubber, 9 F.3d at 842–43 (mathematical constants used in computer program uncopyrightable)).
- 47. It is error to not determine the protectability of elements and not filter out unprotectable elements *before* proceeding to the comparison step to determine substantial similarity and copyright infringement. *See Gates Rubber*, 9 F.3d at 842 ("We conclude that the district court failed to undertake a proper filtration analysis with respect to several elements and that it erroneously found other elements to be protectable."); *id.* at 843 ("Accordingly, while the

constants were probative of the factual question whether the defendants copied from the [asserted] program, they were unprotectable and therefore should have been filtered out *before* the district court addressed the ultimate question of whether the defendants infringed on [plaintiff's] copyright.") (emphasis added).⁸⁴

- 48. After the completion of the filtration step, the remaining protectable elements (if any) are compared with the accused program to determine if the accused program is substantially similar to the asserted works. See Eng'g Dynamics, 26 F.3d at 1342-43, 1347. The substantial similarity comparison cannot rely on unprotectable elements. See Eng'g Dynamics, 26 F.3d at 1347; Gates Rubber Co. v. Bando Chemical Indus., 9 F.3d 823, 842 (10th Cir. 1993); Mattel, Inc. v. MGA Entertainment, Inc., 616 F.3d 904, 916 (9th Cir. 2010); see also Computer Associates Intern., Inc. v. Altai, Inc., 982 F.2d 693, 710 (2d Cir. 1992)).
- 49. The plaintiff must "complete the *Altai* analysis necessary to evaluate claims that a program's nonliteral elements were copied" because "[w]ithout this analysis, there [will be] no evidence in the record to support [the plaintiff's] claims that nonliteral elements were copied." *See Gen. Universal Sys.*, 379 F.3d at 144; *see also* SCOTT ON INFO. TECH. L. § 2.51 (3d Ed. 2020-1 Supplement) ("The burden is on the plaintiff to provide a complete *Altai* analysis.") (citing *Gen. Universal Sys.*, 379 F.3d at 144).
 - 50. Neither SAS Institute nor its expert Dr. Storer performed a complete Altai /

⁸⁴ See also Gates Rubber, 9 F.3d at 842 ("We conclude that the district court erroneously extended copyright protection to certain unprotectable elements of the computer program. We also conclude that the district court failed properly to determine the protectability of many of the elements of Gates' program which it found to have been copied by the defendants."); Eng'g Dynamics, 26 F.3d at 1343 ("Third, the court should then compare the remaining protectable elements with the allegedly infringing program to determine whether the defendants have misappropriated substantial elements of the plaintiff's program.") (quoting Gates Rubber, 9 F.3d at 834) (emphasis added).

abstraction-filtration-comparison test at each level of abstraction, even using the levels of abstraction that Dr. Storer articulated himself. *See Eng'g Dynamics*, 26 F.3d at 1344 ("The filtration component of the analysis seeks to isolate noncopyrightable elements from *each* particular level of a program.") (emphasis added). SAS Institute has not met its burden on its copyright infringement claim. *See Gen. Universal Sys.*, 379 F.3d at 144.

- 51. While it is not World Programming's burden to complete the *Altai* analysis, WPL has advanced ample evidence that SAS Institute's software contain significant unprotectable elements. ⁸⁶ These unprotectable elements include: (1) public domain elements such as SAS 76; (2) elements dictated or contributed by user SAS language programs; (3) facts and data; (4) elements taken from third parties like the PL/I and SPSS languages and programs; (5) mathematical and statistical algorithms, calculations, variables, and measurements; (6) well-known ideas or templates for graphically displaying data, like tables, graphs, charts, plots, colors, and fonts; (7) expressions that have merged with idea, facts, or functionality; (8) scenes á faire elements in statistical and mathematical analysis as well as computer science and computer programming; and (9) short phrases, fragmentary words, and abbreviations.⁸⁷
- 52. Dr. Storer alludes to SAS 76 and the public domain issue (identified above) in his report. 88 However, rather than filtering those elements out to ensure that only protectable elements were being compare, Dr. Storer explicitly contends that he is not filtering out those public domain

⁸⁵ Cf. Storer 4/20/2020 Dep. Tr. at 153:23-164:18, 156:22-157:25, 158:16-159:24, 160:19-164:18.

⁸⁶ This evidence also satisfies any burden of production if one were to exist by virtue of the presumption of validity from the copyright registrations.

⁸⁷ *See* Jones Copyright Report at § 8.2.2 (¶¶ 108-214).

⁸⁸ See Storer Copyright Report at 33.

elements because, in his view, the "decision to continue" to use unprotectable elements is protectable. But even if an unprotectable element is "selected" to be used in a compilation, the copyright in such a compilation does not extend to "the preexisting material employed in the work." *See* 17 U.S.C. § 103(b); *Feist*, 499 U.S. at 349. Whether or not the compilation ultimately ends up being protectable, public domain material employed in a work remains unprotectable and must be filtered out. *See Gen. Universal Sys.*, 379 F.3d at 143-44; *Gates Rubber*, 9 F.3d at 842-43.

53. As another example, almost all of the types of terms that Dr. Storer mentions are names, abbreviations, or shorthand for statistical and mathematical concepts, procedures, calculations, variables, and measurements that are conventional or dictated by standards in the fields of statistical analysis or in computer programming.⁸⁹ See Taylor, 54 F. App'x 794 ("Copyright Act does not protect fragmentary words or short phrases"); Eng'g Dynamics, 26 F.3d at 1345 ("Likewise, abbreviations for terms, dictated by necessity or industry standard, are uncopyrightable by themselves."). These terms are also often simply reflective of or descriptive of the functionality assigned to them. For example, PROC MEANS calculates a mean value. PROC PRINT prints a dataset. PROC GLM performs a general linear model regression analysis. PROC ANOVA performs analysis of a variance. PROC TTEST performs a t-test analysis. Similarly, other terms like "print," "header," "method," "info", "data," "order," and "label" are short phrases or shorthand that reflect their functionality, industry standards, or programming standards and practices. 90 See Computer Mgmt., 220 F.3d at 401 ("In the area of computer programs these external factors may include: hardware standards and mechanical specifications, software standards and compatibility requirements, computer manufacturer design standards, target

⁸⁹ See Jones Copyright Report at § 8.2.2.12, § 8.2.2.13 (¶¶ 205-214).

 $^{^{90}}$ See Jones Copyright Report at § 8.2.2.13, ¶ 214.

industry practices and demands, and computer industry programming practices.") (quotations and citations omitted); *Eng'g Dynamics*, 26 F.3d at 1347, n.12 (similar). These are all unprotectable elements that should have also been filtered out.

- 54. Even the term "PROC" itself is an abbreviation for a "procedure," which is a common term in practice in the computing industry. In fact, "PROC" was a term that SAS Institute took from IBM's PL/1 language, which makes it also uncopyrightable because it simply was not original to SAS. *See Feist*, 499 U.S. at 348; *Eng'g Dynamics*, 26 F.3d at 1347 ("Among the allegedly infringed cards, for instance, some may be so generic, e.g., a 'header' or an 'end' card, that they lack that minimal degree of creativity required for copyright protection. If other cards for which [plaintiff] claims copyright protection almost wholly derive from the input formats developed by [a third party] many years earlier, they would also lack the requisite originality."). "Procedures" themselves are also uncopyrightable by statute. *See* 17 U.S.C. § 102(b); *Concentro Labs., L.L.C. v. Practice Wealth, Ltd.*, 623 F. App'x 251, 252 (5th Cir. 2015) (affirming summary judgment against copyright infringement claims because the copyright owner "chiefly alleged infringement of the procedure itself, for which there is no copyright protection") (footnotes omitted).
- 55. As yet another example, output generated by a SAS language program includes unprotectable mathematical and statistical variables and constants, graphs, charts, tables, plots, user data, and calculated values. ⁹³ See Eng'g Dynamics, 26 F.3d at 1343. Dr. Storer, however,

⁹¹ See Jones Copyright Report at § 8.2.2.13, ¶ 213.

⁹² See Goodnight Dep. Tr. at 143:19-144:25. Moreover, Mr. Anthony Barr testified that, when developing the SAS language, he took a number of lexical features from PL/1 as well as features that were in SPSS and that he used algorithms and procedures from other sources like textbooks, manuals, and programs. See Barr Dep. Tr. at 15:13-16:24, 17:21-19:9; 26:2-18, 54:21-55:21.

⁹³ See Jones Copyright Report at § 8.2.2.3 (¶¶ 134-38), § 8.2.2.5 (¶¶ 146-50), § 8.2.2.7 (¶¶ 173-

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testified that "people have been using graphs and tables and charts for a long time" and that they are "well known." Dr. Storer also testified that SAS Institute does not have copyrights over colors or column width. Similarly, Dr. Goodnight testified that SAS Institute did not develop the fonts used in its software and does not have copyrights on horizontal and vertical lines themselves. These elements should have been filtered.

- As another example, facts and data should have been filtered. For instance, Mr. Rubendall, SAS Institute's corporate representative on copyright topics, testified that SAS Institute did not have copyrights over a map of France (or its borders or regions) that was used in a SAS program using PROC GMAP.⁹⁷ With the SURVEYSELECT procedure, Mr. Rubendall described values in the three middle columns as being part of the input data and values in the fourth column as being dictated by a user's if/then/else statement in the user program.⁹⁸ For a SAS program using SGSCATTER, Mr. Rubendall testified that the location of each point is determined by the input data itself.⁹⁹
 - 57. As a further example, as described above, Mr. Rubendall described output

^{79), § 8.2.2.9 (¶¶ 185-91), § 8.2.3 (¶¶ 215-29).}

 $^{^{94}}$ See Storer 4/20/2020 Dep. Tr. at 288:3-9. Mr. Rubendall testified similarly. See Rubendall Dep. Tr. at 222:20-223:11. As did Mr. Barr in 1983. See Barr Dep. Tr. at 101:2-10.

⁹⁵ See Storer 4/20/2020 Dep. Tr. at 250:2-251:3.

⁹⁶ See Goodnight Dep. Tr. at 62:15-23, 71:21-72:3.

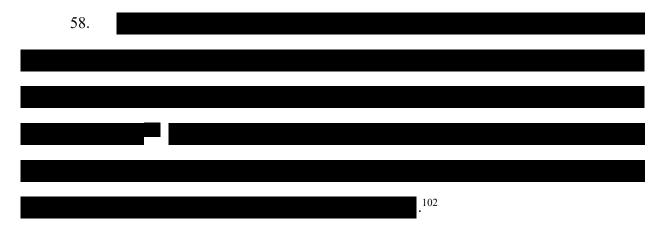
⁹⁷ See Rubendall Dep. Tr. at Ex. 46; *id* at.225:17-24; *id*. at 226:10-13.

⁹⁸ See Rubendall Depo. Tr. at Ex. 43 (highlighting indicates elements of the output results that are attributable to the user program or the input data); *id.* at 197:2-198:25.

⁹⁹ See Rubendall Dep. Tr. at Ex. 47 (highlighting indicates elements of the output results that are attributable to the user program or the input data); *id.* at 234:13-235:2.

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generated by programs where his highlighting reflected elements that were contributed or dictated by the user SAS language program. All of these elements contributed or dictated by users are not original to SAS Institute and cannot be copyrighted by it. Accordingly, these elements should have been filtered.



59. Furthermore, with respect to formatting output, SAS documentation explains how in most instances, destinations are formatted by a third party:¹⁰³

¹⁰⁰ See Rubendall Dep. Tr. at Ex. 43, Ex. 44, Ex. 47, 191:5-202, 204:22-207:10, 207:21-25, 208:25-210:13, 229:17-23, 233:18-236:25, 240:5-242:10.

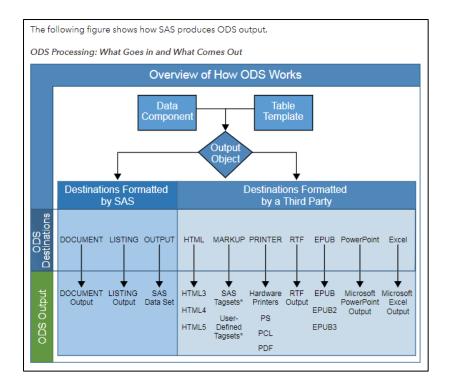
¹⁰¹ See Goodnight Dep. Tr. at 49:1-5; id. at 52:17-53:13.

¹⁰² See, e.g., mva920-dv3270 Report, SASPROD_WPL_EDTEX 00347541-8100 at 8097; mva920-ds Report, SASPROD_WPL_EDTEX 00351432-3093 at 3092; mva920-VMI Report, SASPROD_WPL_EDTEX 00344691-695 at 695; mva920-W64 Report, SASPROD_WPL_EDTEX 00345682-92 at 92; mva920-xprnt Report, SASPROD_WPL_EDTEX 00346258-63 at 62; Request # 1249755, SASPROD_WPL_EDTEX 00420067-81 at 67; Request # 1324683, SASPROD_WPL_EDTEX 00420353-66 at 53; Request # 1273976, SASPROD_WPL_EDTEX 00420128-149 at 128.

¹⁰³ See Overview of How ODS Works, available at https://documentation.sas.com/?docsetId=odsproc&docsetTarget=p027b3wsp0yg9yn1tfqekatdtn 85.htm&docsetVersion=9.4&locale=en.

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This third-party formatting elements (and what they generate) are not original to SAS Institute and should have been filtered out.

60. Further still, evidence supports the conclusion that SAS system software includes elements that were common to programming languages or statistical analysis, were simply mathematical or statistical elements (like algorithms or formulas), or elements that SAS Institute adopted or emulated from other systems, such as PL/I, SPSS, and SQL. ¹⁰⁴ They are either scenes a faire or otherwise not original to SAS Institute. As noted, Dr. Goodnight testified that the word PROC was taken from PL/1 from IBM. ¹⁰⁵ The SAS 76 Manual actually confirms and explicitly states that the SAS Language and software was based on and took elements from PL/I. ¹⁰⁶ Also, Dr. Goodnight testified that the choices of what functions to include in the SAS software is often

 $^{^{104}}$ See Jones Copyright Report at § 8.2.2.6 (¶¶ 151-172), § 8.2.2.7 (¶¶ 173-79),.

¹⁰⁵ See Goodnight Dep. Tr. at 143:19-144:25.

¹⁰⁶ See SAS 76 Manual at 1, 37, 300, 319.

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based on user input, suggestions, and vote as opposed to just internal express choices.¹⁰⁷ Dr. Goodnight also testified that SPSS would be expected to have an analysis of variance and a regression routine, and that if someone is going to be in the data analysis business, they have to have the functions that users want and need and ask for.¹⁰⁸ Dr. Goodnight also testified that "regression analysis and those optimal numbers" were something that mathematicians and statisticians had been doing for a long time and that SAS Institute "didn't invent the regression analysis."¹⁰⁹ Mr. Barr testified that the naming of PROCs, like PROC GLM for example, was essentially no different than a plus sign and there was "no difference from a linguistic standpoint."¹¹⁰ Mr. Rubendall testified that the mathematical formula used in Brewer's PPS method, which is used in the SURVEYSELECT PROC was well-known and documented.¹¹¹

61. Moreover, Mr. Anthony Barr, who came up with the idea of the SAS Language, testified that he took from PL/I a number of lexical features when creating a precursor to the SAS language. Mr. Barr also testified about how these prior elements ended up in the SAS Language. Additionally, Mr. Barr testified that the idea of the self-defining file, which is a powerful one or is the cornerstone for SAS, was an idea that he got from his Pentagon experience,

¹⁰⁷ See Goodnight Dep. Tr. at 65:23-66:24. Dr. Goodnight also went on to testify that, if a user suggested that an output screen look a certain way, and SAS implemented that change, SAS would claim the copyright to that output screen. *Id.* at 73:3-8.

¹⁰⁸ See Goodnight Dep. Tr. at 56:11-57:6.

¹⁰⁹ See Goodnight Dep. Tr. at 266:9-18.

¹¹⁰ *See* Barr Dep. Tr. at 28:7-23.

¹¹¹ See Rubendall Dep. Tr. at 223:12-21; id. at 204:12-21; id. at Ex. 45.

¹¹² See Barr Dep. Tr. at 17:21-18:25 (concerning Mr. Barr's work prior to SAS Institute).

¹¹³ See Barr Dep. Tr. at 18:26-19:9; id. at 26:2-18.

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that SPSS had gotten the same idea from an ancestor MIT program, and that because SPSS had features like value labels and variable labels (that were not in SAS 72), SAS Institute followed suit and included them in SAS 76.¹¹⁴ Mr. Barr also testified that he used algorithms and procedures from other sources, such as statistical textbooks, the PL/I reference manual, and other programs like the ACM procedures.¹¹⁵ These types of elements should have been filtered out.

62. Additionally, SAS software has "engines" that enable users to access files created with other vendors' software as if those files were written by SAS software. 116

Introduction to the BMDP, SPSS, and OSIRIS Engines

The following read-only engines enable you to access files that were created with other vendors' software as if those files were written by SAS software:

BMDP

accesses system files that were created with BMDP Statistical Software.

SPSS

accesses SPSS files that were created under Release 9 of SPSS as well as SPSS-X system files and portable export files that are created by using the SPSS EXPORT command.

OSIRIS

accesses OSIRIS files.

You can use these engines in any SAS applications or procedures that do not require random access. For example, by using one of the engines with the CONTENTS procedure and its _ALL_option, you can determine the contents of an entire SPSS file.

63. Similarly, SAS software supports processing of SQL (e.g., in PROC SQL). SQL is not original to SAS. This is not unlike SAS Institute's complaint that WPS can process programs written in the SAS Language. *See, e.g.*, Dkt. No. 264 at 15. But in any event, in addition to these

¹¹⁴ See Barr Dep. Tr. at 15:13-16:24.

¹¹⁵ See Barr Dep. Tr. at 54:21-55:21.

¹¹⁶ See The BMDP, SPSS, and OSIRIS Engines, available at https://documentation.sas.com/?docsetId=hosto390&docsetTarget=n0d9bzfc1vz788n1nhqh5vrto6y2.htm&docsetVersion=9.4&locale=en.

file formats not being original to SAS Institute, this type of file compatability is not copyrightable and should have been filtered out. *See Eng'g Dynamics, Inc. v. Structural Software, Inc.*, 46 F.3d 408, 410 (5th Cir. 1995) (explaining in a supplemental opinion that *Engineering Dynamics* "cannot properly be read to extend...to the practice employed by users of programs of analyzing application programs to 'read' the file formats of other programs.").

- 64. Even at the "collection" level, SAS Institute has failed to provide proper *Altai* filtration analysis necessary to show that there were some remaining elements so that it can then show alleged copying of the copyrightable elements. *See Gen. Universal Sys.*, 379 F.3d at 144; SCOTT ON INFO. TECH. L. § 2.51.¹¹⁷ At minimum, SAS 76 is not disputed to be in the public domain. And it had many of the same identically named elements being asserted now. Under SAS Institute's apparent "collection" theory, the names of those things themselves are, taken together, a collection. And they were not filtered out at the collection level—that is, the public domain collection was not filtered out as a subset of the asserted collection.
- 65. Moreover, separate and apart from the identically named elements, the overall syntax, structure, and organization of elements, such as the PROC statement, were defined in SAS 76, which is in the public domain. Whenever SAS Institute adds a new PROC statement to the SAS Language (or adds additional options or parameters or some other element as illustrated above), it is following the same template established in SAS 76 that has been released into the public domain. Thus, that particular syntax, structure, and organization is not copyrightable by SAS Institute. The same logic holds and is true for other elements that have been defined in SAS

¹¹⁷ See Storer 4/20/2020 Dep. Tr. at 153:23-164:18; Dkt. No. 272 at 10-17.

¹¹⁸ See S & H, 568 F. Supp. at 419; Goodnight 03/05/2020 Dep. Tr. at 63:13-15.

¹¹⁹ See Jones Copyright Report at § 8.2.2.1, ¶¶ 108-123.

76 as illustrated above. The presence of a collection in the public domain is significant and needs to be accounted for in the filtration analysis. This reasoning also applies for collections of other unprotectable elements, such as scenes a faire, factual, mathematical, short phrase, and third-party elements. SAS Institute's failure to properly filter at the collection level precludes a finding of copyrightability in its favor. *See Gen. Universal Sys.*, 379 F.3d at 144.

66. Having failed to "complete the *Altai* analysis necessary to evaluate claims that a program's nonliteral elements were copied," SAS Institute has failed to meet its burden on its copyright infringement claim because "[w]ithout this analysis, there [is] no evidence in the record to support [SAS Institute's] claims that nonliteral elements were copied." *See Gen. Universal Sys.*, 379 F.3d at 144; *see also* SCOTT ON INFO. TECH. L. § 2.51 (3d Ed. 2020-1 Supplement) ("The burden is on the plaintiff to provide a complete *Altai* analysis.") (citing *Gen. Universal Sys.*, 379 F.3d at 144).

G. Statute of Limitations

- 61. The statute of limitations for allegations of copyright infringement is three years. For allegations of continued infringement, each instance of actionable copying is treated as a separate act of infringement. *See* 17 U.S.C. § 507(b). No civil action for copyright infringement can be maintained unless it is commenced within three years after the claim accrued. Thus, conduct occurring more than three years before the time when the claim for infringement accrues cannot alone be the basis for a finding of infringement.
- 62. SASI filed this copyright lawsuit on July 18, 2018, making the relevant date under the three-year statute of limitations for copyright infringement July 18, 2015.
 - 63. The copying alleged by SASI in this case occurred prior to July 18, 2015.
 - 64. World Programming did not have access to the SAS Learning Edition on or after

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July 18, 2015.

- 65. World Programming did not have access to the SAS System on the Computer Associates ("CA") mainframe on or after July 18, 2015.
- 66. World Programming has never seen, reviewed, or analyzed SAS System source code.
- 67. As World Programming has continued to develop WPS, the work done in the previous generations of WPS is often not included in new versions of WPS.

. Robinson Dep. Tr. (30(b)(6), WPL CEO, Feb. 12, 2020) at 11:20-25; 12:20-24; 13:1-13.

- 68. Conduct occurring more than three years before the time when the claim for infringement accrues cannot alone be the basis for a finding of infringement, ¹²⁰ and SASI has not evidenced conduct constituting infringement of a protectable copyright within the statute of limitations.
 - 69. SASI's claims for copyright infringement are thus barred under 17 U.S.C. § 507(b).

H. Extraterritoriality

70. U.S. copyright law generally has no extraterritorial effect and cannot be invoked to secure relief for acts of infringement occurring outside the United States. Thus, domestic conduct—that is, conduct within the United States—is a necessary element of a copyright

¹²⁰ See 17 U.S.C. § 507(b).

 ¹²¹ See Van Stry v. McCrea, 2:19-CV-104-WCB, 2019 WL 8017783, at *2 (E.D. Tex. July 12, 2019) (citing Impression Prods., Inc. v. Lexmark Int'l, Inc., 137 S. Ct. 1523, 1537 (2017); Geophysical Serv., Inc. v. TGS-NOPEC Geophysical Co., 850 F.3d 785, 797 (5th Cir. 2017)).

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infringement plaintiff's claim.¹²² And conduct that occurs outside of the United States does not violate United States law.¹²³ Also, where a copyright plaintiff claims contributory infringement predicated on direct infringement that occurred entirely extraterritorially, the plaintiff has stated no claim.¹²⁴

- 71. World Programming operates its business out of its headquarters in the United Kingdom. World Programming designs and implements its WPS software from its headquarters in the United Kingdom. SASI's evidence of software development, alleged copying, and access to SAS materials such as SAS Manuals and the SAS Learning Edition occurred in the United Kingdom.
- 72. Because domestic conduct—that is, conduct within the United States—is a necessary element of a copyright infringement plaintiff's claim, and SASI has not presented evidence of copyright infringement in the United States of a protectable copyright, SASI has no claim for copyright infringement.

I. Copyright Misuse

73. SASI has used its copyrights to indirectly gain commercial control over subject matter that SASI does not have copyrighted, and thus has misused its copyrights. The grant to the author of the special privilege of a copyright carries out a public policy adopted by the Constitution and laws of the United States, "to promote the Progress of Science and useful arts, by securing for

¹²² See Geophysical Serv., Inc. v. TGS-NOPEC Geophysical Co., 850 F.3d 785, 797 (5th Cir. 2017).

¹²³ See Van Stry v. McCrea, 2:19-CV-104-WCB, 2019 WL 8017783, at *2 (E.D. Tex. July 12, 2019).

¹²⁴ See Geophysical Serv., Inc. v. TGS-NOPEC Geophysical Co., 850 F.3d 785, 799 (5th Cir. 2017).

limited Times to [Authors] ... the exclusive Right ..." to their "original" works. But the public policy which includes original works within the granted monopoly excludes from it all that is not embraced in the original expression. By claiming copyright protection over unprotectable works and elements within work, SASI has used its copyrights to secure an exclusive right or limited monopoly not granted by the Copyright Office.¹²⁵

- 74. SASI is barred from prevailing on its action for copyright infringement because SAS Institute has misused its copyrights.
- 75. SASI's copyright allegations in this case reflect that use of its copyrights over its software (SAS System) and manuals to claim copyright protection over unprotectable elements.
- 76. SASI claims copyright protection over the SAS Language, which is an idea or functional in nature, and is free to use without a license. SASI claims copyright protection over elements of its software, both literal and non-literal, that were in the public domain. SASI claims copyright protection over facts and data, such as the output of a map of a country. SASI claims copyright protection over the data that programmers programming in the SAS Language input. SASI claims copyright protection over performing mathematically or statistically correct analyses. SASI claims copyright protection over open-source or third party materials (such as open source and non-SAS code described in Black Duck reports). SASI claims copyright protection over well-known conventions or techniques (such as representing data in tables or graphs and various common shorthand abbreviations for mathematical or statistical analyses). SASI claims copyright protection over functionality, such as executing SAS Language programs correctly or performing mathematical or statistical algorithms). SASI claims copyright protection over ideas (such as

¹²⁵ See Alcatel USA, Inc. v. DGI Techs., Inc., 166 F.3d 772, 793 (5th Cir. 1999) (quoting jury instruction from district court) (internal citations omitted); see also United States Constitution, Art. I, § 8, cl. 8; 17 U.S.C. § 102.

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keyworks to describe functions or attributes where the name of the keyword is the idea of the function or the attribute). And SASI claims copyright protection over material created and owned by others (such as user SAS programs and resulting output that are owned by users).

77. By claiming copyright protection over these non-protectable elements, SASI is misusing its copyrights to secure an exclusive right or limited monopoly not granted by the Copyright Office and which is contrary to public policy.

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Dated: June 29, 2020. Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned certifies that a true and correct copy of the foregoing document was served on counsel of record via email on June 29, 2020.

/s/ Bradley W. Caldwell
Bradley W. Caldwell

CERTIFICATE OF AUTHORIZATION TO FILE UNDER SEAL

The undersigned hereby certifies that the foregoing document is authorized to be filed under seal pursuant to the Protective Order in this case.

/s/ Bradley W. Caldwell
Bradley W. Caldwell